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POLICY PAPER 3

BOTS

AND BRAZIL'S ELECTORAL LEGAL SYSTEM

2018 ELECTIONS



#observa2018
Digital Democracy Room

POLICY PAPER 3

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Bots and Brazil's Electoral Legal System

in the 2018 Elections

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Summary

1. Mass Disinformation	4
2. Bots and Content Visibility: Central Concepts	6
2.1. What are Social Bots?	6
2.2. What Is The Role of Social Bots In Visibility of Electoral Content?	7
3. Boosting, Bots, and Brazil's Electoral Legal System	9
4. New Challenges In The Election Law	13
5. Recommendations	14
References	15
Editorial Staff	17

1. MASS DISINFORMATION

In democratic elections, voting usually comprises two fundamental empowering aspects: electors vote for candidates because they agree with their projects and have a positive assessment of their background or party, and/or electors vote for candidates because of their charisma, honesty, and other values transmitted by candidates' own image (MUTZ, 2009).

The dissemination of fake news affects both these motivations of a democratic vote. On one hand, the rational choice of projects and the assessment of candidates' background can be impaired by the overflow of possibly untrue information. On the other hand, untrue facts misrepresent the aforementioned features of candidates – either for or against their image. Besides, disseminating untrue information also reinforces ideological biases in each voter, because the evidence presented confirms ideas, values, and notions inherent to his/her points of view¹.

However, the fake news phenomenon cannot be fully understood based only on the false information element: the mode of dissemination is fundamental to determine the electoral impact. For that reason, social bots and real people share fake news in social media and communication applications such WhatsApp or even e-mail services. Social bots, when pretending to be real people sharing news and presenting opinions, have become a tool to generate a critic mass of sharing news in several online communication vehicles; consequently, they made some facts, either true or not, part of the mainstream narrative. Thus, what makes the current fake news phenomenon different from older forms of disinformation is precisely its massive scale and online circulation.

For those reasons, the dynamics of fake news in elections is quite particular: it consists in the massive production and dissemination of misinformation using networks of social bots that interconnect online content with electoral purposes. In the

¹ Studies addressing political biases and information bubbles have pointed out this scenario of reinforcing biases. Here are some examples: BESSI; FERRARA (2016); BRUMMETTE et al. (2018); LEWANDOWSKY et al. (2017); JANG & KIM (2018); and WALDMAN (2018).

international scenario, there are noticeable examples, such as the 2014 elections in Japan, the 2016 United States presidential elections, the Brexit referendum in the United Kingdom, also in 2016, and the 2017 general elections in France, among others. In Brazil, the use of social bots for electoral purposes of misinformation dates back to the 2014 elections at least (RUEDIGER, 2018c), but it reached a higher scale and prominence in the recent 2018 general elections.

The phenomenon that characterized the 2018 Brazilian elections was the growth in the creation and sharing of misinformation by social bots. According to studies carried out by FGV DAPP², automated interactions on Twitter during the electoral process reached the peak of 12.9% of the sample collected between September 12 and 19, 2018, and the average of 8.5% between September and October, the main periods of the electoral race. In comparison, DAPP estimated that bots were responsible for up to 10% of interactions in Twitter during the 2014 elections. Added to the analysis of the interaction universe on Twitter, there are indications of massive use of the app WhatsApp to share false information. According to Reuters (BOADLE, 2018) and Bloomberg (FRIER; CAMILO, 2018), hundreds of millions of accounts were blocked for using automated message dispatch technologies in the 2018 elections, without comparable precedents in 2014.

Considering the complex Brazilian electoral scenario, it is urgent and necessary to analyze the legal, electoral codes that prevent and fight fake news. In this report, we aimed to contribute to the debate about the regulation of electoral bots and the identification of automated tools available for candidates and parties. First, we will define social bots in comparison with digital content boosting tools – a legal form of increasing content visibility on social networks recently regulated by the Brazilian Electoral Law³. Next, we will explore legal, electoral codes usually applied in the fight against the dissemination of untrue news in Brazil, highlighting their scopes and limits. At last, we combined technical and legal issues that determined the 2018 elections to

² We thank the FGV DAPP's team for providing the database regarding the frequency of automated interactions on Twitter during the 2018 elections.

³ Art. 57-C, Law no. 9.504/97, and art. 24, TSE Resolution no. 23.551/17.

promote an informed debate about the fight against fake news by means of the election regulation.

2. BOTS AND CONTENT VISIBILITY: CENTRAL CONCEPTS

The word bot (abbreviation of robot) is used in different contexts to name several technologies – from mechanical robots, which interact with the physical world, to computer programs that produce and reproduce content on social networks. Regarding the use of this word in interferences in elections, mainly in the 2016 US elections and in the 2018 Brazilian elections, we particularly refer to the second definition. Usually called social bots, this technology was target of great criticism by the media due to its use to disseminate fake news, to personify real people, and to serve as automated means to increase the visibility of content produced by political personas.

In order to properly comprehend this phenomenon, we will provide a general explanation on the technologies that allow the use of bots and why they became relevant tools within political and legal environments. This section aims to supply this explanation for readers unfamiliar with this subject.

2.1. WHAT ARE SOCIAL BOTS?

The use of algorithm mechanisms to create and communicate information in natural language does not occur only in electoral events (GOLDBERG et al., 1994)⁴. The expression bots, in the context of massive propagation of fake content, means software that interact with other users in social media or online content using natural language, for example in the comment section of news websites. These programs

⁴ One of the first uses of this technology was the Forecast Production Assistant, which issued reports on climate conditions in English and French for the Canadian audience. Available at <<https://ieeexplore.ieee.org/document/294135>>. Other examples by Goldberg et al. (1994) are chatbots used in the customer service.

present several forms of interaction, such as advanced systems of natural language creation, which comprise machine learning techniques to process and answer messages, and simple systems that send previously determined messages or messages selected based on keywords found in the text with which the bot will interact.

In platforms such as Twitter and Facebook, bots can act as automated accounts that autonomously post, comment, and interact with other users (likes, messages, reactions, etc.)⁵. For example, some bots simply gather scattered information – such as news, processing of legal proceedings, etc. – in a news feed that can be accessed in the social network. Rui is an example of this type of bot from the news website JOTA; it monitors the processing of ongoing proceedings in the Brazilian Supreme Federal Court (STF) and posts it on Twitter⁶. There are also bots that automatically answer interactions by natural people in message applications; this type of bot, usually called chatbot, has been widely used by companies in their Facebook business pages to interact with clients. At last, some bots are used to generate views on certain content by means of interactions between content and their replication (FERRARA et al., 2016).

Several factors somehow contribute to the existence and dissemination of bots. Among them, we can mention the price drop to access cloud computing systems, servers, and artificial intelligence services (ZHANG, 2016), and the increase in the access to broadband internet⁷. The combination of these factors reduces access and maintenance costs so that bots can be easily multiplied. Besides, it hampers the control of communication platforms (e.g., social media and news websites).

⁵ Despite the illegal uses of bots in some contexts, there are legitimate uses for this type of technology. A clear example is WikiTextBot, which performs in the social network Reddit and posts summaries of Wikipedia pages. Available at <<https://www.reddit.com/user/WikiTextBot>>.

⁶ See <<https://twitter.com/ruibarbot>>

⁷ See. CETIC.BR. TIC Domicílios 2017, Available at: <<https://cetic.br/pesquisa/domicilios/indicadores>>. Access on: 3 Dec. 2018.

2.2. WHAT IS THE ROLE OF SOCIAL BOTS IN VISIBILITY OF ELECTORAL CONTENT?

Social network platforms (for example, Facebook, Twitter) usually have two mechanisms to highlight shared posts:

- I. The first mechanism increases the visibility of content produced by posts with higher interaction, such as comments, likes, and shares. In this study, we will call this type of highlighting content **views by interaction**.
- II. The second mechanism, **views by paid boosting**, highlights posts paid to the platforms. In the electoral context, both mechanisms are regulated by Resolution no. 23551 of the TSE (Brazilian Superior Electoral Court).

The massive use of social bots can affect the first mechanism of views by interaction with any accessible post. While automatically and massively interacting, bots can trick social network systems, making them understand that real people are engaging with content in a large scale, which consequently increases content reach. This type of views by interaction is different from views by paid boosting, since the latter is provided by the platform itself, such as tweets promoted by Twitter, in which users pay to have their content highlighted.

Besides, bots can replicate any content in new posts, so that the content published increases its reach without the need for interaction with a particular post. Thus, these technologies can also work in messaging app such as WhatsApp, by replicating political messages and content for individuals and groups.

Analyses of the use of bots in electoral contexts must consider the difference between the mechanisms of views by interaction and by paid boosting. As demonstrated in the next sections, this difference is crucial to understand the regulations established by the TSE and the broader debate on the role of bots in elections.

3. BOOSTING, BOTS, AND BRAZIL'S ELECTORAL LEGAL SYSTEM

The use of automated mechanisms of content sharing on the internet, as described in the previous section, does not occur in a rule-free environment. On the contrary, the Brazilian scenario has a specific regulation for electoral propaganda on the internet, which has different approaches for varied strategies of content dissemination. These rules have received some criticism, but at least they provide an initial basis to comprehend the meaning behind the ruling practice and the possibilities to apply it to similar cases.

Diogo Rais (2018, p. 47) classifies the several virtual manifestations into three categories. The first category is the editorial content, whose main characteristic is the previous control of what is published by a professional entity, which happens with journalistic content. The second category is the organic content, which includes the free manifestation of all users on the internet. The third category is the electoral propaganda, which is ruled by several resolutions by the Brazilian Election Justice and the General Law of Elections.

Particularly in the TSE Resolution no. 23551/17⁸ and in Law no. 13488/17 (which inserted new provisions in Law no. 9504/97, the General Law of Elections), the Superior Electoral Court determined only two legal types of disseminating electoral propaganda: boosting and sponsored links. Boosting is about increasing the number of views on some content within a social network. Thus, if a candidate boosts one of his/her posts, it will be highlighted for a larger number of users. The second dissemination type usually appears in the form of ads and banners displayed to users.

Both boosting and sponsored links must fulfill two main conditions to be legal. Firstly, content in both types of dissemination must be identified as electoral content linked to

⁸ Available at: <<http://www.tse.jus.br/legislacao-tse/res/2017/RES235512017.html>>. Accessed on: 3 Dec. 2018.

a party or to a particular candidate⁹. The purpose of this rule is to ensure transparency in the electoral process, since voters have the right to know when they are exposed to propaganda. Secondly, only political parties and candidates – and their representatives – willing to advertise their campaign can contract such services in social networks¹⁰. It means that third parties cannot contract this type of dissemination on behalf of a campaign they support. This rule intends to link parties and candidates with the content disseminated, ensuring the political and economic accountability of the campaign.

Despite this provision, the regulation on boosting has some limitations in differentiating electoral propaganda and organic content. The TSE, for example, has considered Twitter as a platform of exclusively private manifestations¹¹, which classifies as organic content all content disseminated in this environment. However, several individuals with millions of followers in the platform have become relevant disseminators of political content when engaging in the electoral debate. Although these interactions can affect voting more than paid boosting, they are not classified and approached as political propaganda.

Different from the approach to paid boosting, the Brazilian law does not explicitly mention the use of social bots to disseminate political propaganda. Thus, although there are guidelines on the legal use of boosting tools, it is not perfectly clear if, in light of the Brazilian legal system, the use of bots for the purpose of disseminating propaganda is possible. Yet, recent changes in the electoral law have indicated that legislators have not welcomed this practice, specially when it involves the register of fake profiles in social networks.

⁹ Art. 57-C, head provision of Law no. 9504/97: Any type of paid electoral propaganda on the internet is prohibited, except for content boosting, as long as it is unequivocally identified as such and exclusively contracted by parties, alliances and candidates and their representatives.

¹⁰ Art. 57-C, paragraph 3, of Law no. 9504/97: The boosting service mentioned in the head provision of this article must be directly contracted through an internet provider whose head office and jurisdiction is located in Brazil, or whose branch, subsidiary, office, business or legal representative is located in Brazil, with the only purpose to promote and benefit candidates and their alliances.

¹¹ Superior Electoral Court, **REsp no. 7464**, judged on September 12, 2013, p. 30.

Article 57-B, paragraph 2, of Law no. 9504/97¹², prohibits the dissemination of electoral content through the register of a user in an internet application with the intent to forge one's identity. In other words, this article prohibits the creation of fake profiles in social networks – those that do not match the real identity of their admin – with the purpose of sharing electoral content. This provision does not differentiate if fake profiles are controlled by natural people or bots; therefore, both practices are prohibited.

In a more forceful way, art. 57-B, paragraph 3, of Law no. 9504/97, prohibits electoral propaganda boosting on the internet by means of tools not available in the application provider in which the propaganda will be disseminated, even if these tools are free. Consequently, using bots to disseminate electoral content and obtain more views by interaction in a social network is illegal, because bots are a digital tool not available in social networks.

Precisely, one can also consider that the use of bots to manage fake profiles is an attempt to avoid the identification and liability of electoral content disseminators, since he/she is in a position of intended anonymity. On this matter, art. 57-D, of Law no. 9504/97, points out that, although the expression of thoughts is free, anonymity is prohibited in electoral campaigns on the internet. If this rule is broken, the one responsible for disseminating electoral propaganda anonymously and the one who benefits from it (when he/she has proven previous knowledge about the dissemination) are subject to pay a fine between R\$ 5,000.00 and R\$ 30,000.00.

According to art. 33, paragraph 2, of the TSE Resolution 23551/17, content dissemination is only considered anonymous when it is not possible to identify the users after taking the measures provided for in articles 10 and 22 of Law no. 12965/14 (Brazilian Civil Rights Framework for the Internet), it means, once the application provider has provided the access records to the authority responsible for investigation.

¹² Available at: <http://www.planalto.gov.br/ccivil_03/LEIS/L9504.htm>. Accessed on: 3 Dec. 2018.

In light of the regulatory framework in force in Brazil, an aggravating issue of using social bots in elections is the alleged contracting of message dispatch services and other automated tools during the 2018 elections (CAMPOS MELLO, 2018). This service has been increasingly offered by companies to electoral campaigns, which has not (yet) been object of a specific regulation in the Brazilian electoral law. This regulatory vacuum, in turn, raises doubts about the legality of this type of service, forcing authorities to apply traditional legal, electoral resources. This is what happened, for example, in the investigations carried out by the TSE due to the news report by the newspaper *Folha de São Paulo*, which investigated the alleged non-informed contracting of these services by companies supporting Jair Bolsonaro's candidacy (PSL/PRTB), with mass message dispatch via WhatsApp. Without a clear rule on the use of bots and other automated tools, the TSE pleaded (i) economic power abuse, due to the irregular reception of donations from legal entities (prohibited since 2015 due to the STF's decision rendered within the concentrated constitutional review¹³), (ii) use of fake profiles for electoral propaganda, and (iii) irregular purchase of user registers.

Since there has not been a judgment on the merits until today regarding these actions and other similar ones (the rapporteur, minister Jorge Mussi, denied the concession of a preliminary injunction because he stated the need for a more robust set of evidence to indicate probable cause), there are not clear signs on how the Election Justice will handle this issue considering the lack of specific regulation. However, compared to the transparency and accountability standards in electoral propaganda intensified by paid content boosting in social networks, one can see how the use of mass message dispatch using social bots is far from the circumstances of electoral propaganda already regulated.

In summary, according to the Brazilian Electoral Law, paid boosting is legal if conducted according to mandatory guidelines, which ensure some degree of transparency and accountability of parties, candidates, and alliances. On the other

¹³ ADI no. 4.650, Rapp. Min. Luiz Fux, judged on Sept. 17, 2015.

hand, increasing the number of views of electoral content by using social bots – although not explicitly regulated – is prohibited anyway in most cases due to provisions that prohibit the register of fake profiles, the use of tools non-provided by providers, and the anonymous dissemination of electoral propaganda.

4. NEW CHALLENGES IN THE ELECTION LAW

The 2018 elections were marked by the use of disruptive automation technologies to forge and distort narratives on social networks for electoral purposes. Initiatives such as the Digital Democracy Room, headed by FGV DAPP, showed that automated accounts on Twitter mentioned several candidates within the political spectrum (RUEDIGER, 2018a). Besides, Ruediger (2018a) identified at least three bot networks reproducing messages and coordinately engaging in topics. These indicators point out sophisticated political propaganda strategies that cannot be ignored.

Thus, this report aimed to help understand these automation tools in contrast with legal mechanisms of electoral propaganda on the internet. This comparison is particularly relevant when we demonstrated the technical and legal differences of strategies for visibility.

On one hand, boosted electoral propagandas are ruled by minimum transparency and accountability standards for parties, alliances and candidates, with clear information that the content disseminated is for an electoral campaign. The technical feature of views by boosting also clearly shows that the content is paid; therefore, it warns the reader that those responsible for the content published have an advertising intent. On the other hand, the disruptive technology of views by automated interaction does not meet any transparency or accountability criteria. In the technical implementation, it forges content visibility by interaction, creating the impression of emergent authentic narratives on social networks.

The legal difference between electoral propaganda and organic content is relevant for the maintenance of free and fair elections, and the use of social bots is a problem when

it comes to publishing electoral propaganda with the pretense of sharing organic, spontaneous content. However, although electoral legal reforms have dedicated to study these issues, technical particularities of the operation of this mechanism, the difficult to identify more sophisticated bots, and the real impact of these mechanisms on electoral results still represent – and will continue representing – constant challenges to the law.

5. RECOMMENDATIONS

The use of bots in elections is a complex phenomenon that has not yet been directly or systematically faced by Brazilian election authorities within the legislative, regulatory, or legal spheres. As repeatedly pointed out in this report, bots are highly complex technological tools that, despite their high potential to facilitate relevant digital communication dynamics in electoral contexts, can power mass misinformation processes and produce destructive effects on the operation of democracy. Therefore, a specific legal approach to this phenomenon is necessary.

It is mandatory that several actors involved with the regulation of social bots substantially study the technical peculiarities of this phenomenon and the political challenges deriving from it – particularly the lack of transparency and accountability that permeates the current use of these tools in the digital environment. It is necessary to increase awareness of the civil society and voters about the risks of digital misinformation so that new extra-state strategies can come up to stop the problem, such as the fact-checking initiatives. On the other hand, electoral lawmakers and magistrates must actively engage in this debate and look for suitable solutions that do not constrain innovation and experimentation in the electoral process, but curb and disarm misinformation structures in the basis of the use of bots.

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The analyses of the Digital Democracy Room do not intend to represent an election poll; they assess the social perception in the digital environment regarding the themes of the public agenda, such as political actors and public policies. Therefore, we do not authorize the use of our analysis for political or party purposes or to endorse particular positions. Access further information regarding this work at dapp.fgv.br/observa2018/methodology.

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